

R E M A R K S

I. Introduction

In response to the Office Action January 26, 2006, Applicant has amended paragraphs [013] and [050] to correct any inadvertent errors in the specification and to further clarify the present invention. No new matter has been added.

In response to the allegation in the Office Action that the application containing the specification referred to by the Declaration has not been identified by serial number in the Declaration, Applicants would like to point out that the application has been identified by serial number in the transmittal letter attached to the Declaration as well as by title in the Declaration. Accordingly, Applicants respectfully submit that the specification to which the declaration is directed has been adequately identified.

For the reasons set forth below, Applicant respectfully submits that all pending claims are patentable over the cited prior art references.

II. The Objection Of The Drawings

Figure 1 was objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters “1” and “3” have both been used to designate the membrane electrode assembly (MEA) and the current collector plates respectively, but in Fig. 1, characters “1” and “3” appear to denote the same component. Applicants respectfully assert that this interpretation is incorrect.

Figure 1, as described in paragraph [043] of the specification, clearly shows four MEAs, as indicated by reference character “1” which are all represented by shading with diagonal lines going from the upper left to the lower right. In contrast, two current collector plates, indicated

by reference character “3” are represented by shading with diagonal lines going from the upper right to the lower left. Therefore, the characters “1” and “3” do not denote the same component. Accordingly, Applicants respectfully request that the objection to Figure 1 of the drawings be withdrawn.

III. The Rejection Of Claims 1, 3, 5, 6, 8 And 9 Under 35 U.S.C. § 103

Claims 1, 3, 5, 6, 8 and 9 are rejected under 35 U.S.C. § 103 as being unpatentable over Murakami et al. (US 2003/0039869) in view of Bailey et al. (USP No. 6,638,650). Applicants respectfully traverse this rejection for at least the following reasons.

Claim 1 recites, in-part, a method for operating a polymer electrolyte fuel cell comprising a plurality of unit cells...said method comprising the steps of: determining an electric output of said single unit cell or a group of said unit cells after the stoppage of the supply of either said fuel gas or said oxidant gas and the introduction of another gas to at least one of said pair of electrodes; and comparing said electric output to a predetermined value.

Similarly, claim 11 recites, in-part, a polymer electrolyte fuel cell...wherein said fuel cell further comprises a control unit for determining said single unit cell or a group of said unit cells as defective when an electric output thereof is not greater than a predetermined value after the stoppage of the supply of either said fuel gas or said oxidant gas and the introduction of another gas to at least one of said pair of electrodes.

With regard to claim 1, Murakami fails to disclose the introduction of another or inert gas to one of the electrodes after the stoppage of the supply of either the fuel gas or oxidant gas. However, it was alleged that the teaching of Bailey (the introduction of an inert or other gas to

the fuel cell via the fuel gas or the oxidant gas manifold) combined with Murakami renders claim 1 of the present invention obvious.

However, Bailey does not teach the addition of an inert gas **after** the stoppage of the supply of either the fuel gas or the oxidant gas. Rather, Bailey teaches the addition of either the fuel gas **and** the inert gas to the fuel cell, or the fuel gas, the oxidant gas **and** the inert gas to the fuel cell (see, col. 3, line 55 to col. 6, line 67 of Bailey). Thus, the method of detecting a fuel leak of Bailey is not applicable to the method of Murakami, because Murakami requires **the stoppage** of fuel gas supplied to the fuel cell.

As is well known in patent law, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gorden*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). As the invention disclosed in Murakami requires the stoppage of fuel gas supplied to the fuel cell in order to operate, then Bailey, which teaches the addition of either the fuel gas **and** the inert gas to the fuel cell, or the fuel gas, the oxidant gas **and** the inert gas to the fuel cell in order to detect a fuel leak, would render the invention of Murakami inoperable for its intended purpose. Accordingly, as there is no suggestion or motivation to make the proposed combination of Murakami with Bailey, Applicants respectfully submit that the § 103 rejection of claims 1 and 11 over Murakami and Bailey be withdrawn.

IV. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*,

819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 1 and 11 are patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

V. Conclusion

Having fully responded to all matters raised in the Office Action, Applicant submits that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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